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In the claims:

- 1. (original) A method for specifically detecting chitin and not cellulose in a sample, comprising the steps of:
- (a) contacting the sample with a first reagent comprising a chitin-binding domain (CBD) and optionally fused to a maltose-binding domain (MBD); and
- (b) detecting specifically whether chitin and not cellulose is present in the sample by the binding of CBD to chitin.
- 2. (original) A method as recited in claim 1, wherein the CBD in the reagent is conjugated to a reporter.
- 3. (original) A method as recited in claim 2, wherein the reporter is selected from the group consisting of a radioactive material, a fluorophore, a dye, an electron-dense compound, and an enzyme.
- 4. (original) A method as recited in claim 1, wherein the sample comprises a plant tissue, an agricultural product, an animal tissue, a human tissue, a contact lens, a prosthetic device, or an air filter.
- 5. (original) A method as recited in claim 1, wherein the sample comprises an animal body fluid, a human body fluid, a plant fluid, potable water, or a beverage.

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6. (original) A method as recited in claim 1, wherein the contacting step additionally comprises contacting the sample with a second reagent comprising an antibody to CBD or an antibody to a protein fused to CBD.

- 7. (original) A method as recited in claim 6, wherein the first reagent additionally comprises a reporter.
- 8. (original) A method as recited in claim 7, wherein the reporter is selected from the group consisting of a radioactive material, a fluorophore, a dye, an electron-dense compound, and an enzyme.
- 9. (original) A method according to claim 1, wherein the CBD has a carbohydrate-binding module corresponding to CBM12.
- 10. (original) A method according to claim 1, wherein step (a) is preceded by bleaching the sample.
- 11. (original) A method according to claim 1, wherein the CBD is obtained from chitinase AI from *Bacillus circulans*.
  - 12. (original) A kit, comprising: an immobilized CBD reagent.

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13. (original) A kit according to claim 12, further comprising instructions for use of the immobilized CBD reagent for detecting chitin.

- 14. (original) A kit according to claim 12, further comprising a soluble CBD carrier protein fusion molecule linked to a reporter.
- 15. (original) A kit according to claim 14, wherein the carrier protein is MBP.
- 16. (original) A kit according to claim 14, wherein the reporter is a rhodomaine or fluorescein dye.
- 17. (original) A kit according to claim 13, wherein the CBD is derived from chitinase AI.
- 18. (withdrawn) A method for detecting chitin in a sample, comprising:
  - (a) obtaining an immobilized first CBD;
- (b) adding the sample and allowing any chitin in the sample to bind to the immobilized CBD;
- (c) adding a second CBD for binding the immobilized chitin of step (b) wherein the CBD is optionally linked to a protein carrier and a reporter molecule or to reporter molecule only and wherein the first CBD and the second CBD are obtained from the same or different chitinase; and

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- (d) detecting the chitin in the sample.
- 19. (withdrawn) A method according to claim 18, wherein the second CBD is linked to a carrier protein, wherein the carrier protein is MBP.
- 20. (withdrawn) A method according to claim 19, wherein step (d) further comprises detecting the chitin by means of a labeled antibody.
- 21. (withdrawn) A method according to claim 19, wherein the first CBD is immobilized by means of a chemical linker.
- 22. (withdrawn) A method according to claim 19, wherein the first CBD is immobilized on a substrate selected from: a bead, a gel, a filter, a column and a reaction vessel surface.